Lightsaber App

Create a new project called LightSaberApp*, but replace the * with your last name. When you complete this project, generate the "Share" link through Thunkable, and submit it on Teams. If you work in Android Studio or XCode, zip up everything associated with the project and submit that.

In this project, you will create an app where the user can perform various actions with their phone to mimic the use of a lightsaber. The phone will respond similarly to how the saber would to a variety of motions. **The layout of the user interface is up to you**, but the purpose of this assignment is to familiarize yourself with the accelerometer sensor, and think through the programming required to have your phone mimic the lightsaber's behavior.

I will be looking for a few general requirements:

- Please note—this assignment requires three comments:
    - For each of the behaviors below, explain at the start of the code segment associated with this behavior how you programmatically determine that the behavior is happening.
- Ensure your app's components have sensible names for what they are (for example, scoreText is a better name than Label1).
- A combination of actions should turn the lightsaber on and off:
    - To turn the saber on, the phone must be oriented near-vertically right-side-up, and the user must press a button. This action should play a sound and include a change in the display.
    - To turn the saber off, the phone must be oriented near-vertically upside-down, and the user must press a button. This action should play a sound and include a change in the display.
- Swinging the phone through the air should result in a swinging saber sound playing, and may or may not include a change in the display.
- The phone abruptly stopping or abruptly colliding with an object should result in a crashing saber sound playing, and may or may not include a change in the display.
    - If you would like, you may elect to only have one of this and the swinging action active at any one time—you must still code both though!
- I am not as focused on the aesthetics for this assignment.
- Bugs should be documented and/or error-checked for full credit.
- Lists, loops, variables, and/or procedures should simplify the app's code (if applicable).

Extra Credit: If you can successfully make the swinging and crashing actions work sensibly at the same time, you will get one bonus point. Alternatively, you may program one additional saber action with Mr. Horner's approval.